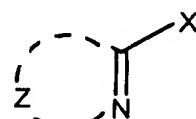


## CLAIMS:

1. A colour photographic element comprising at least one light-sensitive silver halide emulsion layer or a non silver-containing light-insensitive layer, in which at least one of these layers contains a colourless imidazole compound of formula (I) that undergoes less than 10% chemical or redox reaction directly with oxidized developer and which enables the photographic speed of the element to be increased by at least 0.03 stop without increasing granularity, compared to the same element without the compound, wherein the compound of formula (I) has the structure:-



(I)

wherein

X is H or a substituent;

15 Z represents the atoms necessary to complete an unsubstituted or substituted imidazole ring, which may form part of a fused unsubstituted or substituted ring system containing no further ring heteroatoms; wherein there is present at least one -NH group either in the imidazole ring or directly attached to the imidazole ring as part of X;

20 provided that

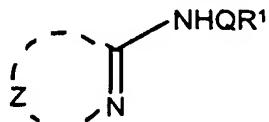
(a) when Z represents the atoms necessary to complete an unsubstituted or substituted benzimidazole ring, an -NH group is directly attached to the imidazole ring as part of X, and X is located between the imidazole nitrogen atoms;

25 (b) when the -NH group is located in the ring adjacent to the carbon atom bearing X, and X is located between the imidazole nitrogen atoms, the imidazole ring is not fused to a phenanthrene ring.

2. A colour photographic element as claimed in claim 1 wherein the compound of formula (I) undergoes less than 5% chemical or redox reaction directly with oxidised developer.

3. A colour photographic element as claimed in either of the preceding claims wherein the compound of formula (I) is contained in the most light-sensitive layer of two or more light-sensitive layers having the same spectral sensitivity.
- 5
4. A colour photographic element as claimed in any one of the preceding claims wherein the compound of formula (I) is located in the green record wherein the maximum spectral sensitivity to light is from 500 to 600nm.
- 10 5. A colour photographic element as claimed in any one of the preceding claims wherein the silver halide comprises silver iodobromide.
6. A colour photographic element as claimed in any one of the preceding claims wherein the compound of formula (I) enables the photographic speed of the element to be increased by at least 0.10 stop without increasing 15 granularity, compared to the same element without the compound.
- 20 7. A colour photographic element as claimed in any one of the preceding claims wherein the compound of formula (I) has one or more electron-withdrawing groups attached to the imidazole ring, a ring fused thereto or as part of substituent X.
8. A colour photographic element as claimed in any one of the preceding claims wherein when there is an -NH group as part of the imidazole 25 ring X is selected from a cyano or an unsubstituted or substituted alkyl, aryl, alkyl-or aryl-sulfonyl, alkyl-or aryl-carbonyl, alkyl-or aryl-carbonyl, heterocyclyl or a group NRQR<sup>1</sup>, wherein R is hydrogen or an alkyl group, R<sup>1</sup> is a substituent and Q is a carbonyl, sulfonyl or aryl group.

9. A colour photographic element as claimed in any one of the preceding claims wherein the compound has the formula (II)



(II)

5 wherein

NHQ is selected from the class consisting of amido, arylamino, ureido, carbamato or sulfonamido;

R¹ is a substituent; and

10 Z represents the atoms necessary to complete an unsubstituted or substituted imidazole ring, which may form part of a fused unsubstituted or substituted ring system containing no further ring heteroatoms;

provided that when Z represents the atoms necessary to complete an unsubstituted or substituted benzimidazole ring, NHQR¹ is located between the two imidazole nitrogen atoms.

15

10. A colour photographic element as claimed in claim 9 wherein Q is or contains an electron-withdrawing group.

11. A colour photographic element as claimed in either of claims 9 and 20 10 wherein Q is or contains a carbonyl or a sulfonyl group.

12. A colour photographic element as claimed in claim 11 wherein, when Q is or contains a carbonyl group, the ring or ring system represented by Z contains one or more electron-withdrawing groups.

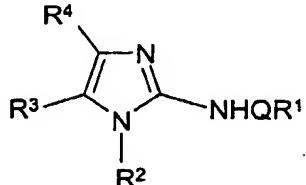
25

13. A colour photographic element as claimed in claim 11 wherein, when Q is or contains a sulfonyl group, the ring or ring system represented by Z is unsubstituted or contains one or more electron-withdrawing or electron-donating groups.

30

14. A colour photographic element as claimed in claim 9 wherein, when Q is an aryl group, the ring or ring system represented by Z contains one or more electron-withdrawing groups.

5 15. A colour photographic element as claimed in any one of claims 9 to 14 wherein the compound has the structure (III):-



wherein

10 R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> are independently selected substituents or R<sup>3</sup> and R<sup>4</sup> may join to form a fused ring not containing any ring heteroatoms; NHQ is selected from the class consisting of an amido, ureido arylamino, carbamato or sulfonamido group.

15 16. A colour photographic element as claimed in claim 15 wherein R<sup>1</sup> is selected from hydrogen and an unsubstituted or substituted alkyl, aryl, alkoxy, aryloxy, or alkyl- or arylamino group

20 17. A colour photographic element as claimed in either of claims 15 and 16 wherein, when Q is a carbonyl group, R<sup>1</sup> is an alkyl group which is unsubstituted or substituted with an unsubstituted or substituted aryloxy group.

25 18. A colour photographic element as claimed in either of claims 15 and 16 wherein, when Q is a sulfonyl group, R<sup>1</sup> is a substituted aryl group.

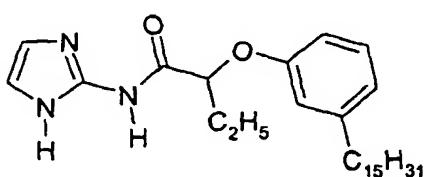
19. A colour photographic element as claimed in either of claims 15 and 16 wherein, when Q is an aryl group, R<sup>1</sup> is an alkoxy group.

20. A colour photographic element as claimed in any one of claims 9 to 19 wherein R<sup>2</sup> is hydrogen or an unsubstituted or substituted alkyl group.

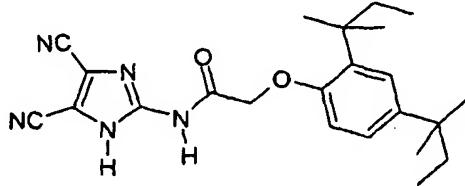
21. A colour photographic element as claimed in any one of claims 9 to 5 20 wherein at least one of R<sup>3</sup> and R<sup>4</sup> is hydrogen or a group which is independently selected from cyan, formyl, keto, carboxylic acid, mercapto and unsubstituted or substituted alkyl, aryl, alkoxy, aryloxy, alkoxy- or aryloxy- carbonyl, alkyl- or aryl-carbonyl, alkyl- or aryl-thio, alkyl- or aryl-sulfoxyl, alkyl- or aryl-sulfonyl, alkyl- or aryl-carbamoyl and alkyl- or aryl-carbonamido.

10 or R<sup>3</sup> and R<sup>4</sup> may join to form a fused ring.

22. A colour photographic element as claimed in any one of the preceding claims wherein the compound of formula (I) is selected from

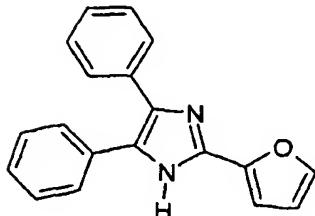


15 SGA1



SGA2

and



SGA21

20 23. A colour photographic element as claimed in any one of the preceding claims wherein when the compound is present in a sensitized layer the ratio of compound to silver is at least 0.1 mmol compound per mol silver halide.

24. A colour photographic element as claimed in any one of claims 1 to 22 wherein when the compound is present in a non-silver-containing layer, the laydown of the compound is at least  $3 \times 10^{-5}$  mol/m<sup>2</sup>.

5 25. A multi-colour photographic element comprising a support bearing yellow, magenta and cyan image-dye-forming units comprising at least one blue-, green- or red-sensitive silver halide emulsion layer having associated therewith at least one yellow, magenta or cyan dye-forming coupler respectively, wherein the element is as claimed in any one of the preceding claims.

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26. A process of forming an image in a photographic element as hereinbefore defined after the element has been imagewise exposed to light, comprising contacting the element as claimed in any one of claims 1 to 25 with a colour developing agent.

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